AMENDMENTS TO THE SPECIFICATION:

Please REPLACE paragraph no. 188 bridging pages 79 and 80 of the Specification with the following amended paragraph:

[0188] Next, as illustrated in FIG. **1D**, the substrate **101** is ion-doped with phosphorus **110** from above the substrate **101** and across the entire surface thereof. The ion doping was performed by using phosphine (PH_3) as the doping gas with an acceleration voltage of about 5 kV to about 15 kV, and a dose of about $5x10^{15}$ cm^{-2} to about $2x10^{16}$~~$2x10^{1}$~~ cm^{-2} (e.g., about $1x10^{16}$~~$1x10^{1}$~~ cm^{-2}). Through this step, the exposed regions of the crystalline silicon film **104b** are doped with phosphorus **110**, thereby forming phosphorus-doped regions **111**. In the region **111**, the crystalline structure is destroyed to some extent by the ion doping step, thus amorphizing the region **111**. The masked regions of the crystalline silicon film **104b** are not doped with phosphorus **110**, whereby the crystalline structure thereof is not destroyed.

Please REPLACE paragraph no. 194 bridging pages 83 and 84 of the Specification with the following amended paragraph:

[0194] Then, as illustrated in FIG. **1H**, an n-type impurity (phosphorus) **123** is implanted into the active region by an ion doping method using the gate electrode **117** and the surrounding oxide film **118** as a mask. Phosphine (PH_3) is used as the doping gas, the acceleration voltage is preferably set to about 60 kV to about 90 kV (e.g., about 80 kV), and the dose is preferably set to about $1x10^{15}$ cm^{-2} to about $8x10^{15}$~~$8x10^{1}$~~ cm^{-2} (e.g., about $2x10^{15}$~~$2x10^{1}$~~ cm^{-2}). The region **124** that is doped with an impurity later becomes the source/drain region of the TFT, and a region **120** that is masked with the gate electrode **117** and the surrounding oxide film **118** and is not doped with an impurity later becomes the channel region of the TFT. Then, the substrate is annealed by being

irradiated with laser light from above the substrate so as to activate the implanted n-type impurity while improving the crystallinity of portions where the crystallinity has been deteriorated through the impurity introducing step as described above. In this step, XeCl excimer laser (wavelength: about 308 nm, pulse width: about 40 nsec) was used with an energy density of about 150 mJ/cm^2 to about 400 mJ/cm^2 (preferably about 200 mJ/cm^2 to about 250 mJ/cm^2). The channel region **120** is masked with the overlying gate electrode **117** and is not irradiated with laser light. The sheet resistance of the obtained n-type impurity (phosphorus) region **124** was about 200 Ω/square to about 500 Ω/square.

Please REPLACE paragraph no. 213 on page 96 of the Specification with the following amended paragraph:

[0213] Then, as illustrated in FIG. **2G**, a low concentration of an impurity (phosphorus) **219** is implanted into the active region by an ion doping method using the gate electrode **217** as a mask. Phosphine (PH_3) is used as the doping gas, the acceleration voltage is preferably set to about 60 kV to about 90 kV (e.g., about 80 kV), and the dose is preferably set to about $1x10^{12}$ to about $\underline{1x10^{14}}$~~$1x10^1$~~ cm^{-2} (e.g., about $\underline{8x10^{12}}$~~$8x10^1$~~ cm^{-2}). Through this step, a low concentration of phosphorus **219** is implanted into a region **221** of the island-shaped silicon film **215** that is not covered with the gate electrode **217**, and a region **220** that is masked with the gate electrode **217** and is not doped with phosphorus **219** will later be the channel region of the TFT.

Please REPLACE paragraph no. 214 bridging pages 96 and 97 of the Specification with the following amended paragraph:

[0214] Then, a photoresist doping mask **222** with a thick side wall is provided so as to cover the gate electrode **217,** as illustrated in FIG. **2H**. Then, a high concentration of

an impurity (phosphorus) **223** is implanted into the active region by an ion doping method using the resist mask **222.** Phosphine (PH_3) is used as the doping gas, the acceleration voltage is preferably set to about 60 kV to about 90 kV (e.g., about 80 kV), and the dose is preferably set to about 1x10^{15} to about $\underline{8\text{x}10^{15}}$~~8x10^{1}~~ cm^{-2} (e.g., about $\underline{2\text{x}10^{15}}$~~2x10^{1}~~ cm^{-2}). The region doped with a high concentration of the impurity (phosphorus) **223** will later be a source/drain region **224** of the TFT. In the active region **215**, the region that is covered with the resist mask **222** and is not doped with a high concentration of phosphorus **223** is left as a region doped with a low concentration of phosphorus, which forms the LDD (Lightly Doped Drain) region **221**. By forming the LDD region **221** as described above, the electric field localization at the junction between the channel region and the source/drain region is reduced, whereby it is possible to reduce the TFT off-state leak current and to suppress the deterioration due to hot carriers, thus improving the reliability of the TFT.

Please REPLACE paragraph no. 230 bridging pages 106 and 107 of the Specification with the following amended paragraph:

[0230] Then, as illustrated in FIG. **4A**, an n-type impurity (phosphorus) **323** is implanted into the active region by an ion doping method using the gate electrodes **317n** and **317p** as masks. Phosphine (PH_3) is used as the doping gas, the acceleration voltage is set to about 60 kV to about 90 kV (e.g., about 80 kV), and the dose is set to about 1x10^{15} cm^{-2} to about $\underline{1\text{x}10^{16}}$~~1x10^{1}~~ cm^{-2} (e.g., about $\underline{6\text{x}10^{15}}$~~6x10^{1}~~ cm^{-2}). In the active region **315n** of the n-channel TFT, a region **324** doped with a high concentration of phosphorus **323** will later be the source/drain region of the n-channel TFT, and the region that is masked with the gate electrode **317n** and is not doped with phosphorus **323** will later be a channel region **320n** of the n-channel TFT. The active region **315p** of the p-channel TFT is also doped with phosphorus. This is done so that a high concentration of phosphorus implanted into these regions can be used as a gett ring

element for gettering the catalyst element into the source and drain regions in the subsequent second heat treatment.

Please REPLACE paragraph no. 231 bridging pages 107 and 108 of the Specification with the following amended paragraph:

[0231] Then, as illustrated in FIG. **4B**, a photoresist doping mask **325** is provided so as to cover the active region **315n** of the n-channel TFT. Then, an impurity giving p-type conductivity (boron) **326** is implanted into the active region **315p** of the p-channel TFT by an ion doping method using the resist mask **325** and the gate electrode **317p** of the p-channel TFT as masks. Diborane (B_2H_6) is used as the doping gas, the acceleration voltage is set to about 40 kV to about 80 kV (e.g., 65 kV), and the dose is set to about 5×10^{15} to about <u>2×10^{16}</u>~~2×10^{1}~~ cm^{-2} (e.g., about <u>1×10^{16}</u>~~1×10^{1}~~ cm^{-2}). The polarity of a region **327** that is doped with a high concentration of boron **326** is inverted from n type to p type through a so-called "counter doping" process, and will later be the source/drain region of the p-channel TFT, whereas the region that is masked with the gate electrode **317p** and is not doped with an impurity will later be a channel region **320p** of the p-channel TFT. In this step, since the active region **315n** of the n-channel TFT is covered entirely with a mask **325**, the active region **315n** is not at all doped with boron **326**.

Please REPLACE paragraph no. 252 bridging pages 118 and 119 of the Specification with the following amended paragraph:

[0252] Then, a low concentration of an impurity (phosphorus) **419** is implanted into the active region by an ion doping method using the gate electrodes **417n** and **417p** as masks. Phosphine (PH_3) is used as the doping gas, the acceleration voltage is set to about 60 kV to about 90 kV (e.g., about 80 kV), and the dose is set to about 1×10^{12} to

about $\underline{1\text{x}10^{14}}$~~1x10~~^{1} cm^{-2} (e.g., about $\underline{2\text{x}10^{13}}$~~2x10~~^{1} cm^{-2}). Through this step, regions of the island-shaped silicon films **415n** and **415p** that are not covered with the gate electrodes **417n** and **417p** become regions **421** doped with a low concentration of phosphorus **419**, and regions that are masked with the gate electrodes **417n** and **417p** and are not doped with the impurity **419** will later be channel regions **420n** and **420p** of the n-channel TFT and the p-channel TFT, respectively. This state is shown in FIG. **5F**.

Please REPLACE paragraph no. 253 bridging pages 119 and 120 of the Specification with the following amended paragraph:

[0253] Then, as illustrated in FIG. **6A**, photoresist doping masks **422** are provided. For the n-channel TFT, the photoresist doping mask **422** with a thick side wall is provided so as to cover the gate electrode **417n**, as illustrated in FIG. **6A**. For the p-channel TFT, the photoresist doping mask **422** with a thicker side wall is provided so as to cover the gate electrode **417p** with only a peripheral portion of the active region **415p** being exposed. Then, a high concentration of an impurity (phosphorus) **423** is implanted into the active region by an ion doping method using the resist masks **422**. Phosphine (PH_3) is used as the doping gas, the acceleration voltage is set to about 60 kV to about 90 kV (e.g., about 80 kV), and the dose is set to about $2\text{x}10^{15}$ cm^{-2} to about $\underline{1\text{x}10^{16}}$~~1x10~~^{1} cm^{-2} (e.g., about $\underline{5\text{x}10^{15}}$~~5x10~~^{1} cm^{-2}). For the n-channel TFT, a region **424** doped with a high concentration of the impurity (phosphorus) **423** will later be the source/drain region of the n-channel TFT. The region of the active region **415n** that is covered with the resist mask **422** and is not doped with a high concentration of phosphorus **423** is left as a region doped with a low concentration of phosphorus, which forms the LDD (Lightly Doped Drain) region **421**. For the p-channel TFT, the region **424** doped with a high concentration of the impurity (phosphorus) **423** will later form the gettering region of the p-channel TFT. The concentration of the n-type impurity element (phosphorus) **423** in the region **424** is about $1\text{x}10^{19}$ to about $1\text{x}10^{21}/cm^3$. Moreover, the

concentration of the n-type impurity element (phosphorus) **419** in the LDD region **421** of the n-channel TFT is in the range of about $1\text{x}10^{17}$ to about $1\text{x}10^{20}/\text{cm}^3$, within which the region functions as an LDD region.

Please REPLACE paragraph no. 254 bridging pages 120 and 121 of the Specification with the following amended paragraph:

[0254] Then, after the resist mask **422** is removed, a photoresist doping mask **425** is provided in the active region **415n** of the n-channel TFT, as illustrated in FIG. **6B**. The photoresist doping mask **425** with a thick side wall is provided so as to cover the LDD region **421** with only a peripheral portion of the active region **415n** being exposed, as illustrated in FIG. **6B**. At this time, no mask is provided for the p-channel TFT, whereby the TFT is entirely exposed. Then, an impurity giving p-type conductivity (boron) **426** is implanted into the active regions by an ion doping method using the resist mask **425** and the gate electrode **417p** of the p-channel TFT as masks. Diborane (B_2H_6) is used as the doping gas, the acceleration voltage is set to about 40 kV to about 80 kV (e.g., 65 kV), and the dose is set to about $1\text{x}10^{15}$ cm^{-2} to about $\underline{1\text{x}10^{16}}\cancel{1\text{x}10^{4}}$ cm^{-2} (e.g., about $\underline{7\text{x}10^{15}}\cancel{7\text{x}10^{4}}$ cm^{-2}). For the n-channel TFT, a region **428n** doped with a high concentration of boron **426** will later function as the gettering region of the n-channel TFT. The region of the active region **415p** of the p-channel TFT other than the channel region **420p** under the gate electrode **417p**, which has been doped with a low concentration of n-type impurity (phosphorus) **419** in the previous step, is doped with a high concentration of boron **426**, whereby the conductivity type thereof is inverted from n type to p type and the region will later be a source/drain region **427** of the p-channel TFT. Moreover, the region **424**, which has been doped with a high concentration of phosphorus **423**, is doped with an even higher concentration of boron **426**, thereby forming a gettering region **428p** of the p-channel TFT. The concentration of the p-type impurity element (boron) **426** in the region **427** and the regions **428n** and **428p** is

preferably about 1.5×10^{19} to about $3 \times 10^{21}/cm^3$. The concentration is about 1 to 2 times that of the n-type impurity element (phosphorus). The gettering region **428n** of the n-channel TFT and the gettering region 428p of the p-channel TFT are regions that have been doped with phosphorus **423** (in the previous step) and with boron **426** (in the current step).

Please REPLACE paragraph no. 272 bridging pages 130 and 131 of the Specification with the following amended paragraph:

[0272] Then, a low concentration of n-type impurity (phosphorus) **519** is implanted into the active region by an ion doping method using the gate electrodes **517n** and **517p** as masks. In the present preferred embodiment, phosphine (PH_3) was used as the doping gas, the acceleration voltage was set to about 80 kV, and the dose was set to about $\underline{2 \times 10^{13}}\cancel{2 \times 10^{1}}$ cm^{-2}. Through this step, regions of the island-shaped silicon films **515n** and **515p** that are not covered with the gate electrodes **517n** and **517p** become regions **521** doped with a low concentration of phosphorus **519**, and regions that are masked with the gate electrodes **517n** and **517p** and are not doped with the impurity **519** will later be channel regions **520n** and **520p** of the n-channel TFT and the p-channel TFT, respectively. This state is shown in FIG. **7E**.

Please REPLACE paragraph no. 273 bridging pages 131 and 132 of the Specification with the following amended paragraph:

[0273] Then, as illustrated in FIG. **7F**, photoresist doping masks **522** are provided. In the active region **515n** of the n-channel TFT, the photoresist doping masks **522** with a thick side wall is provided so as to cover the gate electrode **517n**, as illustrated in FIG. **7F**. In the active region **515p** of the p-channel TFT, the photoresist doping masks **522** with an even thicker side wall is provided so as to cover the entire active region, as

illustrated in FIG. **7F**. Then, a high concentration of an impurity (phosphorus) **523** is implanted into the active regions by an ion doping method using the resist masks **522**. In the present preferred embodiment, phosphine (PH_3) was used as the doping gas, the acceleration voltage was set to about 80 kV, and the dose was set to about $\underline{5\text{x}10^{15}}\cancel{5\text{x}10^{1}}$ cm^{-2}. For the n-channel TFT, a region **524** doped with a high concentration (about $1\text{x}10^{19}$ to about $1\text{x}10^{21}/cm^3$) of phosphorus **523** will later be the source/drain region of the n-channel TFT. In the active region **515n**, the region that is covered with the resist mask **522** and is not doped with a high concentration of phosphorus **523** is left as a region doped with a low concentration of phosphorus, which forms the LDD (Lightly Doped Drain) region **521**. For the p-channel TFT, no phosphorus is implanted into the active region **515p**.

Please REPLACE paragraph no. 274 on page 132 of the Specification with the following amended paragraph:

[0274] Then, after the resist masks **522** are removed, a photo-resist doping mask **525** is provided so as to entirely cover the active region **515n** of the n-channel TFT, as illustrated in FIG. **8A**. At this time, no mask is provided over the active region **515p** of the p-channel TFT, whereby the TFT is entirely exposed. Then, an impurity giving p-type conductivity (boron) **526** is implanted into the active regions by an ion doping method using the resist mask **525** and the gate electrode **517p** of the p-channel TFT as masks. Diborane (B_2H_6) was used as the doping gas, the acceleration voltage was set to about 65 kV, and the dose was set to about $\underline{7\text{x}10^{16}}\cancel{7\text{x}10^{1}}$ cm^{-2}. The region of the active region **515p** of the p-channel TFT other than the channel region **520p** under the gate electrode **517p**, which has been doped with a low concentration of n-type impurity (phosphorus) **519** in the previous step, is doped with a high concentration of boron **526**, whereby the conductivity type thereof is inverted from n type to p type and the region will later be a source/drain region **527** of the p-channel TFT.

Please REPLACE paragraph no. 275 bridging pages 133 and 134 of the Specification with the following amended paragraph:

[0275] Then, after the resist mask **525** is removed, resist masks **529** are formed so as to cover the gate electrode **517n** of the n-channel TFT and the gate electrode **517p** of the p-channel TFT, as illustrated in FIG. **8B**. With the masks **529**, a (peripheral) portion of each of the active regions **515n** and **515p** of the n-channel TFT and the p-channel TFT is exposed. Then, the substrate is ion-doped with a rare gas element (Ar in the present preferred embodiment) **530** from above the substrate across the entire surface of the substrate. Through this step, the rare gas element **530** is implanted into the exposed region of each TFT active region. Thus, gettering regions **528n** and **528p** are formed in peripheral portions of the active regions **515n** and **515p** of the n-channel TFT and the p-channel TFT, respectively. In this step, argon **530** was doped as follows. A 100% Ar gas was used as the doping gas, the acceleration voltage was set to about 60 kV to about 90 kV (e.g., about 80 kV), and the dose was set to about 1×10^{15} cm^{-2} to about $\underline{1 \times 10^{16}}\cancel{1 \times 10^{1}}$ cm^{-2} (e.g., about $\underline{3 \times 10^{15}}\cancel{3 \times 10^{1}}$ cm^{-2}). The region covered with the masks **529** is not doped with the rare gas element. The rare gas element may be one or more rare gas element selected from Ar, Kr and Xe. Moreover, in this step, the concentration of the rare gas element in the gettering region **528** is controlled to be about 1×10^{19} to about 3×10^{21} atoms/cm^3. Moreover, through this step, the crystallinity of the gettering region **528** is destroyed, thus amorphizing the gettering region **528**.